

I. IN THE CLAIMS

1. (Previously Presented) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, said method comprising:

extracting phonetic information regarding said language;
defining, based on said extracted information, phonological and phonetic units associated with said language;
identifying variations in said language;
developing a maximal set based on said defined phonological units, phonetic units, and identified variations in said language, and
reducing said maximal set to a minimal set of phonemes and allophones wherein said reducing said maximal set further comprises reducing a text-to-speech phonetics set, which further comprises removing one of said phonological units, phonetic units and identified variations in said language, thereby providing for a compact model for acoustically transcribing said language.

2. (Original) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, wherein said step of extracting information further comprises:

identifying terminological problems associated with said language;
identifying transcription problems associated with said language;
extracting all phonological and phonetic units associated with said language, and
selecting a representative symbol for the transcription alphabet.

3. (Original) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, wherein said maximal set

comprises any of, or a combination of: phonemes, allophones, rules governing the selection of allophones, a set of examples, and transliteration symbols.

4. (Previously Presented) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, further including the step of reducing an automatic speech recognition phonetic set.

5. (Original) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 4, wherein said step of reducing an automatic speech recognition phonetic set further comprises the use of diacritics, graphemes, and allophones.

6. (Canceled)

7. (Previously Presented) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, wherein said reducing a text-to-speech phonetics set is accomplished by using allophones and adding symbols representing the phoneme to be geminated.

8. (Previously Presented) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 2, wherein said transcription alphabet is in compliance with the International Phonetics Alphabet (IPA).

9. (Original) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, wherein said language is any of the following: modern standard Arabic (MSA), classical Arabic, or colloquial Arabic.

10. (Original) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 1, wherein said phonetic information is extracted over a network.

11. (Previously Presented) A method for determining a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 10, wherein said network is any of the following networks: local area networks (LAN), wide area networks (WAN), Internet, HTTP-based networks, or wireless networks.

12. (Previously Presented) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, said system comprising:

a computer system;

a microphone, said microphone interfacing with said computer system, said microphone capable of receiving voice input in said language,

a multimedia kit including full duplex sound card, said multimedia kit interfacing with said computer system, and said multimedia kit receiving said voice inputs from said microphone, and

said computer system receiving said voice input from said multimedia kit and phonetically analyzing said voice inputs using a stored compact set of phonetic alphabets including a text-to-speech phonetics set from which at least one of a phonological unit, a phonetic unit, and an identified variation in said language has been removed, thereby enabling translation of voice-to-text based on said stored compact set of phonetic alphabets.

13. (Original) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 12, wherein said multimedia kit further comprises a built-in automatic speech recognition (ASR) utility.

14. (Original) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 12, wherein said multimedia kit recognizes human voice and interprets it into corresponding actions without being speaker dependent.

15. (Previously Presented) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 14, wherein said speaker dependent includes gender or age.

16. (Original) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 12, wherein said compact set of phonetic alphabets is accomplished using diacritics, graphemes, and allophones.

17. (Original) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 12, wherein said compact set of phonetic alphabets are compliant with the International Phonetics Alphabet (IPA) standard.

18. (Original) A voice control system utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, as per claim 12, wherein said language is any of the following: modern standard Arabic, classical Arabic, or colloquial Arabic.

19. (Previously Presented) A voice control method utilizing a compact model to transcribe a language acoustically based on well-defined basic phonetics, said method comprising:

receiving voice inputs in said language via a microphone;
phonetically analyzing said received voice inputs using a computer-based system, and
said computer-based system analyzing said voice input using a stored compact set of
phonetic alphabets including a text-to-speech phonetics set from which at least one of a
phonological unit, a phonetic unit, and an identified variation in said language has been removed,
thereby enabling translation of voice-to-text based on said stored compact set of phonetic
alphabets.

20. (Original) A voice control method utilizing a compact model to transcribe a language
acoustically based on well-defined basic phonetics, as per claim 19, wherein said compact set of
phonetic alphabets is accomplished using diacritics, graphemes, and allophones.